Local Climate Action 101

Sonoma Valley Democrats General Meeting
April 24, 2017
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It’s Getting Hot in Here

(a) Observed globally averaged combined land and ocean surface temperature anomaly 1850–2012

- Annual average
- Decadal average

Observed change in surface temperature 1901–2012

(C)
We Understand Why

The Economy Carbon Cycle, Stupid

...apologies to James Carville
We Understand The Threat

<table>
<thead>
<tr>
<th>Emitted compound</th>
<th>Resulting atmospheric drivers</th>
<th>Radiative forcing by emissions and drivers</th>
<th>Level of confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂</td>
<td>CO₂</td>
<td>1.68 [1.33 to 2.03]</td>
<td>VH</td>
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<tr>
<td>CH₄</td>
<td>CO₂ H₂Owä O₃ CH₄</td>
<td>0.97 [0.74 to 1.20]</td>
<td>H</td>
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<tr>
<td>Halocarbons</td>
<td>O₃ CFCs HCFCs</td>
<td>0.18 [0.01 to 0.35]</td>
<td>H</td>
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<tr>
<td>N₂O</td>
<td>N₂O</td>
<td>0.17 [0.13 to 0.21]</td>
<td>VH</td>
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<tr>
<td>CO</td>
<td>CO₂ CH₄ O₃</td>
<td>0.23 [0.16 to 0.30]</td>
<td>M</td>
</tr>
<tr>
<td>NMVOC</td>
<td>CO₂ CH₄ O₃</td>
<td>0.10 [0.05 to 0.15]</td>
<td>M</td>
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<tr>
<td>NO₂</td>
<td>Nitrate CH₄ O₃</td>
<td>-0.15 [-0.34 to 0.03]</td>
<td>M</td>
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<tr>
<td>Aerosols and precursors</td>
<td>Mineral dust Sulphate Nitrate Organic carbon Black carbon</td>
<td>-0.27 [-0.77 to 0.23]</td>
<td>H</td>
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<tr>
<td></td>
<td>Cloud adjustments due to aerosols</td>
<td>-0.55 [-1.33 to -0.06]</td>
<td>L</td>
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<td></td>
<td>Albedo change due to land use</td>
<td>-0.15 [-0.25 to -0.05]</td>
<td>M</td>
</tr>
<tr>
<td>Natural</td>
<td>Changes in solar irradiance</td>
<td>0.05 [0.00 to 0.10]</td>
<td>M</td>
</tr>
<tr>
<td>Total anthropogenic</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>RF relative to 1750</td>
<td></td>
<td></td>
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<tr>
<td>2011</td>
<td>2.29 [1.13 to 3.33]</td>
<td>H</td>
<td></td>
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<tr>
<td>1980</td>
<td>1.25 [0.64 to 1.86]</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>1950</td>
<td>0.57 [0.29 to 0.85]</td>
<td>M</td>
<td></td>
</tr>
</tbody>
</table>

43% higher than estimated in AR4
We Know What To Do
Even T-Rex Knows

“Even T-Rex knows...”

“I think it’s important that the United States maintain its seat at the table in the conversation on how to address threats of climate change.”

“The increase in greenhouse gas in the atmosphere is having an effect. Our ability to predict that effect is very limited.”

Pro Carbon Tax: “a more direct, a more transparent, and a more effective approach... it replaces the hodgepodge of approaches we have today”

“I think it’s important that the United States maintain its seat at the table in the conversation on how to address threats of climate change.”
Countywide GHG Emissions

Figure 2-1. 2010 Countywide GHG Emissions by GHG Source

- Building Energy: 34%
- On-Road Transportation: 53%
- Water Conveyance: 0.1%
- Wastewater Treatment: 0.4%
- Fertilizer and Livestock: 7%
- Solid Waste: 4%
- Off-Road Transportation and Equipment: 2%
- Home-Work: 15%
- Home-School: 10%
- Home-Other: 43%
- Non-Home: 32%
- Residential: 57%
- Commercial: 41%
- Industrial: 2%

68% To/From Homes

88% = On-Road Vehicles & Buildings

57% Homes
Countywide GHG Trend

Why the dip?

‘Backcast’ ‘Business as Usual’ Forecast
GHG Emissions Goal: -6% per year

Figure 3-2. Sonoma County 1990 to 2050 GHG Emissions Pathways

- CA2020 trend
- Business as usual

California’s 2030 Target
California’s 2050 Target
Sonoma Citywide GHG Emissions

71% Drive to Work Alone; Average Trip = 25.5 minutes
Campaign Objectives:

1. Increase climate action literacy and awareness
   – Sierra Club & other local leaders, members, and allies
   – Elected officials and their staff
2. Build decision-maker and local ally relationships
3. Influence policies at county and city councils
4. Encourage action by members, businesses, and the general public

• Team with RCPA to Support CA2020 Outreach!
Action Plan:

- Volunteers support pro-climate actions
  - By Local Governments
    - Municipal plans and GHG footprinting
    - Municipal actions
  - By Local Businesses:
    - GHG benchmarking
    - Business actions
  - By Households:
    - GHG footprinting
    - Personal actions

Share Our Progress
Celebrate Success!
What You Can Do

• Benchmark your carbon footprint
  – CoolCalifornia.org
  – Cut your GHGs by 6% each year
What You Can Do – Join Us

• Become a volunteer “Climate Protector”
  – Sign the pledge and get involved
  – Pick a topic you personally care about
    • Solar power
    • Bicycling
    • Water efficiency
    • Solid waste reduction, etc.

  – We need people to make the CA2020 Plan work
People’s Climate March - April 29

SANTA ROSA, CALIFORNIA
¡EL PUEBLO UNIDO!
PEOPLE’S MARCH
FOR JOBS, JUSTICE, AND THE CLIMATE

A united front to defend immigrant and indigenous rights, public lands, environmental and workplace protections, including government action on climate change and workers’ rights to unionize. The march will provide an inclusive forum for the community to vocally oppose the alarming threats posed to marginalized populations in America, including the LGBTQ community, women, immigrants, and people of color.

12 PM: ROSELAND PLAZA
675 SEBASTOPOL ROAD
BY THE DOLLAR TREE
1 PM: PROGRAM BEGINS
2 PM: MARCH TO OLD COURTHOUSE SQUARE

In Sonoma:

10:30AM –Meet at Burlingame Hall
or at Sonoma Valley High School

11:00 – Rally in Front of City Hall
Example: City of Sonoma

• “We Know What We Need to Do” Cut GHGs by >6%/yr.
  • http://bit.ly/2lBQozh

• Sonoma Ecology Center & TSV Joint Statement:
  – "We Urge the City to Act Now"
    • http://bit.ly/2mgK9h7

• TSV Recommendations Memo to the City of Sonoma
  – http://bit.ly/2j1PR8a

• Thank You to Sonoma's City Manager for Taking Action
  – http://transitionsonomavalley.org/sonoma-opts-up-to-100-evergreen/

• City of Sonoma Ordinance (adopted unanimously)
  – http://bit.ly/2mgMk4s
Other References

1. Sonoma Valley Training #1 (this file, .PDF)
   – Add url here

2. Campaign Action Plan (.PDF)

3. Volunteer Pledge & Onboarding Survey
   – http://bit.ly/2mUXS0p

4. Regional Climate Protection Authority
   – CA2020 Plan, Appendices, FEIR, blog